WASTE SITE RECLASSIFICATION FORM

Operable Unit: 300-FF-2 **Control No.:** 2014-112

Waste Site Code(s)/Subsite Code(s): 300-11

Reclassification Category: Interim ☐ Final ☒

Reclassification Status: Closed Out ☐ No Action ☒ Rejected ☐
RCRA Postclosure ☐ Consolidated ☐ None ☐

Approvals Needed: DOE ☒ Ecology ☐ EPA ☒

Description of current waste site condition:

The 300-11, Pumphouse Underground Gasoline Tank, 382 Pumphouse UGT, 382-1 waste site, part of the 300-FF-2 Operable Unit, was identified as a waste site requiring remediation in the *Hanford Site 300 Area, Record of Decision for 300-FF-2 and 300-FF-5, and Record of Decision Amendment for 300-FF-1,* Hanford Site, Benton County, Washington (300 Area Final ROD), U.S. Environmental Protection Agency, Region 10, Seattle, Washington (EPA 2013).

The 300-11 waste site is located in the 300 Area near the intersection of Wisconsin and Apple Streets. There were three underground gasoline storage tanks located near the northwest corner of the 382 Pumphouse Building used to store leaded and unleaded gasoline for use by the emergency gasoline engine-powered pumps in the 382 Building. The 300-11 waste site was identified following the removal of underground gasoline tank 382-1 in September 1992 after the tank had failed a leak test, *Underground Storage Tank Investigation*, Logbook EFL-1009, pp. 32-39, Westinghouse Hanford Company, Richland, Washington (WHC 1993). Because of the tank's proximity to other buried tanks and utilities, no further testing or remediation was attempted at that time. The contaminated zone of soil was marked with a sheet of blue plastic and the excavation was backfilled to grade. The other two tanks at this location, Tanks 382-2 and 382-3, were excavated and removed in 1994. A full site assessment per *Washington Administrative Code* 173-360-385, "Underground Storage Tank Regulations," was performed for these tanks. No contamination was found in the soil.

On April 21 and May 11, 1993, soil-gas probe sampling was performed to investigate the lateral and vertical extent of contamination from the 382-1 underground gasoline storage tank leak. Sampling results indicated that spilled products have primarily seeped downward through the soil profile with little lateral migration. Soil vapors collected from the deep soil-gas probe contained significant concentrations of volatile organic compounds (VOCs) from an approximate depth of 1.5 to 7.0 m (5 to 23 ft) below ground surface. Below a depth of about 7 m (23 ft), the vapor levels decreased significantly. According to the *382-1 Underground Gasoline Storage Tank Soil-Gas Survey*, WHC-SD-EN-TI-164, Rev. 0, Westinghouse Hanford Company, Richland, Washington (WHC 1993), these low levels indicate the majority of the spilled petroleum products are in the top 6.0 to 7.0 m (20 to 23 ft) of the soil profile. Soil vapor collected from a depth of 8.0 m (26.4 ft) contained only trace levels of VOC characteristics of petroleum products. Sampling from a nearby groundwater well indicated that there was no petroleum contamination in the groundwater (WHC 1993).

In 2012, during the demolition of the 382 Building below grade structure, a faint gasoline odor was observed by the project personnel per the *382, 382B, 382C, 382D, and 382-BA Facility Status Change Form,* D4-300-074, Washington Closure Hanford, Richland, Washington. The odor was attributed to the 300-11 waste site, which was scheduled for remediation.

On June 4, 2013, a pothole was excavated to a depth of 5.5 m (18 ft), where the blue plastic was encountered at approximately 2 m (6 ft) below grade. This blue plastic was left in place following tank removal in 1992. An in-process sample (J1TRR8) was collected at the depth of 5.5 m (18 ft), below ground surface. In-process sampling results indicated that gasoline and VOCs were undetected at this location. No gasoline odor was observed during excavation and no VOCs were detected with field monitoring equipment.

The 300-11 waste site was remediated between June 2 and July 22, 2014, during remediation of the adjacent 300-15:3 pipelines. The 300-11 waste site was excavated to a depth of 4.6 m (15 ft) where a second in-process sample (J1TX26) was collected at this depth. Sampling results indicated that gasoline and VOCs were undetected. Screening for volatile organic compounds was performed during and immediately following remediation. No VOCs were detected within the 300-11 excavation area. Radiological monitoring was performed during the duration of the 300-11 waste site excavation with no radiological activity detected in the field during remediation activities. The in-process sampling data is attached to this Waste Site Reclassification Form for information purposes. To accommodate the remediation of the adjacent 300-15:3 pipelines, the 300-11 waste site location was partially backfilled to an approximate depth of 2.5 m (8.2 ft), as shown in the attached post-excavation civil survey.

The 300-11 waste site was identified as a waste site requiring remediation (EPA 2013); however, in-process soil sampling performed at the 300-11 waste site indicates that no residual contamination is present. Therefore, no action is required.

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Basis for reclassification:

No verification sampling was performed following the remediation of the 300-11 waste site; therefore, the site verification and closeout process deviates from the established requirements by the *300 Area Remedial Action Sampling and Analysis Plan*, DOE/ RL-2001-48, Rev. 4, U. S. Department of Energy, Richland Operations Office, Richland, Washington. The decision of site reclassification to Final No Action is based on the consideration of the in-process sampling and field screening results. In accordance with this evaluation, the 300-11 waste site in-process sampling results indicated no contamination is present.

Additional supporting information is provided in the *Supporting Information for Reclassification of the 300-11, Pumphouse Underground Gasoline Tank, 382 Pumphouse UGT, 382-1 Waste Site* (attached).

Regulator comments:

Waste Site Controls:

Engineered Controls: ☐ Yes ☒ No Institutional Controls: ☐ Yes ☒ No O&M Requirements: ☐ Yes ☒ No

If any of the Waste Site Controls are checked Yes, specify control requirements including reference to the Record of Decision, TSD Closure Letter, or other relevant documents:

M. S. French DOE Federal Project Director (printed)	Signature	1/8/15 Date
NA Ecology Project Manager (printed)	Signature	Date
B. Simes EPA Project Manager (printed)	Signature	1/15/15 Date

SUPPORTING INFORMATION FOR RECLASSIFICATION OF THE 300-11, PUMPHOUSE UNDERGROUND GASOLINE TANK, 382 PUMPHOUSE UGT, 382-1 WASTE SITE

Attachment to Waste Site Reclassification Form 2014-112

December 2014

Figure 1. 300-11 Waste Site Location Map.

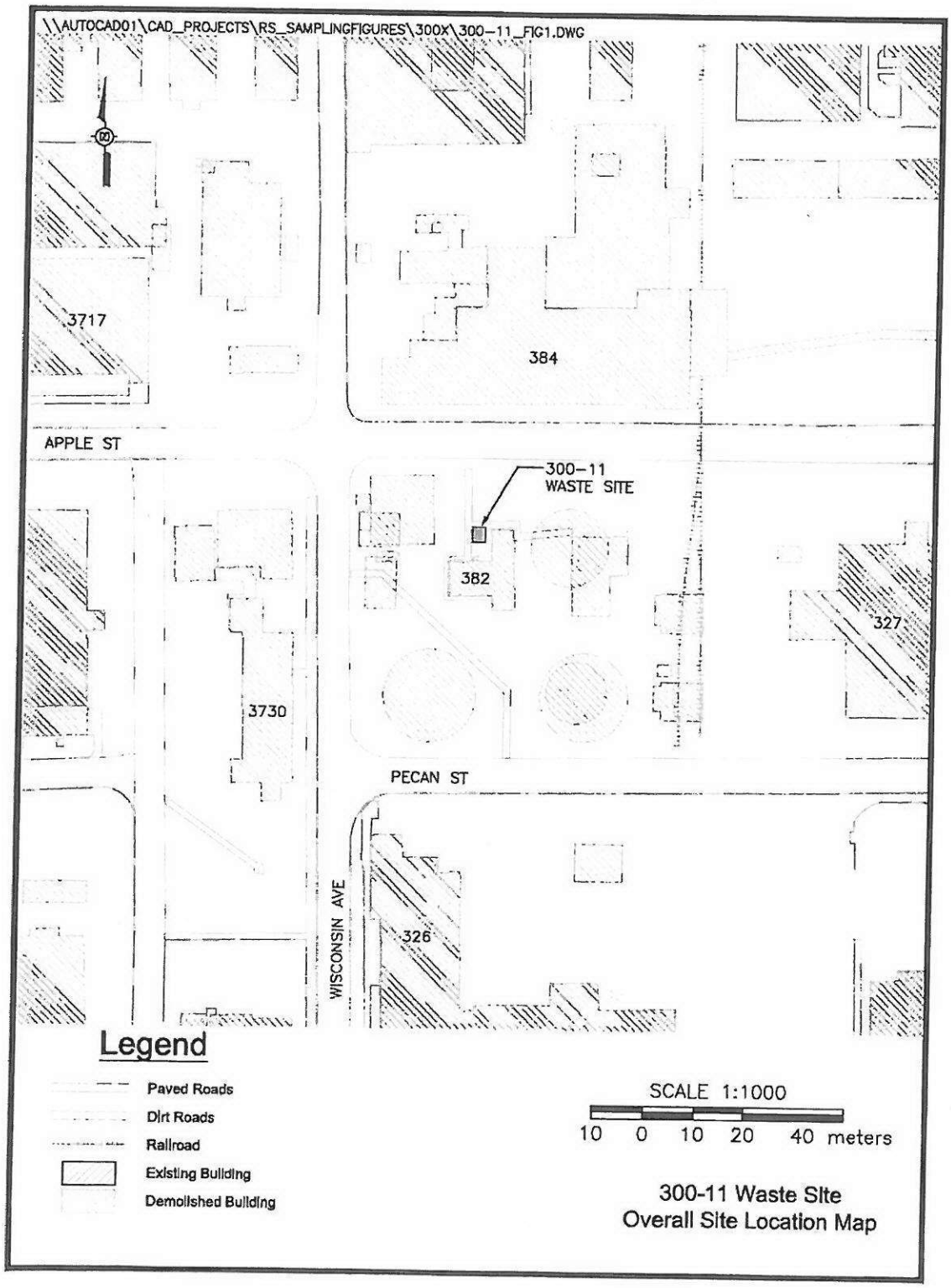

Figure 2. 300-11 Waste Site Location Map – Close-up View.

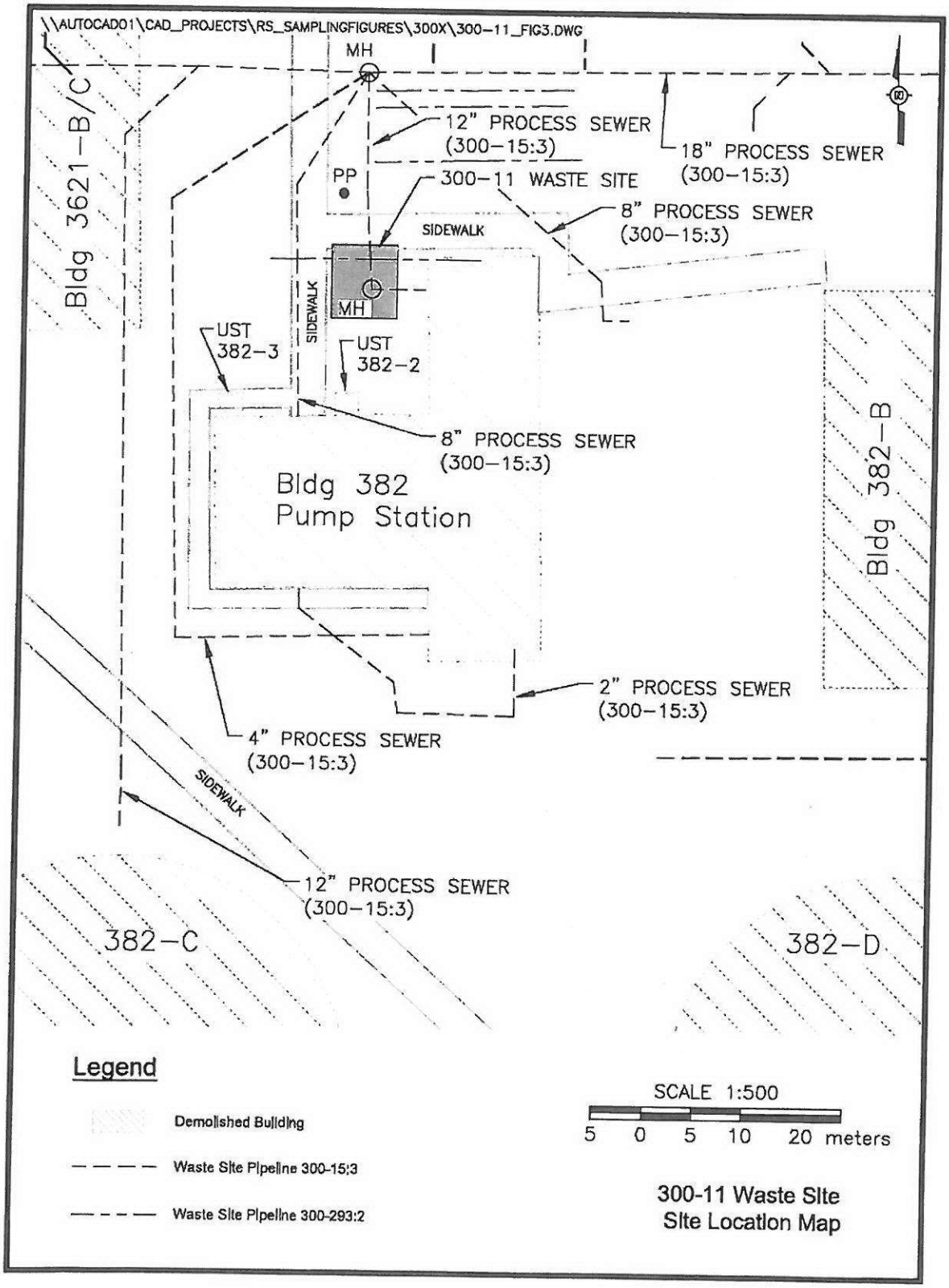

Table 1. 300-11 In-process Sampling Resutls (Metals and TPH)

Sample Location	HEIS Number	Sample Date	Aluminum			Antimony			Arsenic			Barium		
			mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
IP Sample 1	J1TRR8	6/4/14	6560		7.09	1.72	DU	1.72	1.53	B	0.522	75.4	N	0.104
IP Sample 2	J1TX26	7/22/14	5240	*	7.04	3.42	DU	3.42	4.21		0.518	54.5	*N	0.104

Sample Location	HEIS Number	Sample Date	Beryllium			Boron			Cadmium			Calcium		
			mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
IP Sample 1	J1TRR8	6/4/14	1.03		0.104	2.10	B	1.04	0.104	U	0.104	4560		8.35
IP Sample 2	J1TX26	7/22/14	0.739		0.104	2.35	B	1.04	0.124	B	0.104	3600	*	8.28

Sample Location	HEIS Number	Sample Date	Chromium			Cobalt			Copper			Iron		
			mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
IP Sample 1	J1TRR8	6/4/14	0.156		0.156	8.20	D	0.782	14.6		0.313	23500		8.35
IP Sample 2	J1TX26	7/22/14	5.20	*	0.155	7.86	D	1.55	12.4	*	0.311	18400	*	8.28

Sample Location	HEIS Number	Sample Date	Lead			Lithium			Magnesium			Manganese		
			mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
IP Sample 1	J1TRR8	6/4/14	6.89	DU	6.89	6.36	D	0.417	4460		8.87	321		0.209
IP Sample 2	J1TX26	7/22/14	6.95	BD	3.42	6.6	D	0.413	3420	*	8.80	261	*	0.207

Sample Location	HEIS Number	Sample Date	Mercury			Molybdenum			Nickel			Potassium		
			mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
IP Sample 1	J1TRR8	6/4/14	0.00673	B	0.00414	0.424	B	0.209	10.9		0.156	1190		6.68
IP Sample 2	J1TX26	7/22/14	0.00442	B	0.00412	0.429	B	0.207	6.93	*	0.155	843	*N	6.63

Sample Location	HEIS Number	Sample Date	Selenium			Silicon			Silver			Sodium		
			mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
IP Sample 1	J1TRR8	6/4/14	0.344	DU	0.344	1640	*N	1.56	0.104	U	0.104	223		7.30
IP Sample 2	J1TX26	7/22/14	0.341	DU	0.341	1510	*	1.55	0.346	B	0.104	226	*N	7.25

Sample Location	HEIS Number	Sample Date	Tin			Uranium			Vanadium			Zinc		
			mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL	mg/kg	Q	PQL
IP Sample 1	J1TRR8	6/4/14	6.26	DNU	6.26	0.463	D	0.0138	62.4	D	0.522	49.4	D	2.09
IP Sample 2	J1TX26	7/22/14	3.11	DU	3.11	0.572	*D	0.0136	51.6	*DN	1.04	37.4	DN	4.14

Sample Location	HEIS Number	Sample Date	Zirconium			TPH - Gasoline		
			mg/kg	Q	PQL	ug/kg	Q	PQL
IP Sample 1	J1TRR8	6/4/14	24.5	D	0.104	1800	DU	1800
IP Sample 2	J1TX26	7/22/14	27.6	D	0.103	1780	DU	1780

Table 1. 300-11 In-process Sampling Resutls (TCLP Metals)

Sample Location	HEIS Number	Sample Date	Arsenic			Barium			Cadmium			Chromium		
			mg/L	Q	PQL	mg/L	Q	PQL	mg/L	Q	PQL	mg/L	Q	PQL
IP Sample 1	J1TRR8	6/4/14	0.050	U	0.050	0.24		0.010	0.010	U	0.010	0.010	U	0.010
IP Sample 2	J1TX26	7/22/14												

Sample Location	HEIS Number	Sample Date	Lead			Mercury			Selenium			Silver		
			mg/L	Q	PQL	mg/L	Q	PQL	mg/L	Q	PQL	mg/L	Q	PQL
IP Sample 1	J1TRR8	6/4/14	0.033	U	0.033	0.00067	U	0.00067	0.146	B	0.060	0.010	U	0.010
IP Sample 2	J1TX26	7/22/14												

Table 1. 300-11 In-process Sampling Resutls (Organics)

CONSTITUENT	CLASS	J1TRR8			J1TX26		
		06/04/14 10:05 AM			07/22/14 08:20 AM		
		ug/kg	Q	PQL	ug/kg	Q	PQL
1,1,1-Trichloroethane	VOA	0.249	U	0.249	0.341	U	0.341
1,1,2,2-Tetrachloroethane	VOA	0.249	U	0.249	0.341	U	0.341
1,1,2-Trichloroethane	VOA	0.249	U	0.249	0.341	U	0.341
1,1-Dichloroethane	VOA	0.249	U	0.249	0.341	U	0.341
1,1-Dichloroethene	VOA	0.249	U	0.249	0.341	U	0.341
1,2-Dichloroethane	VOA	0.249	U	0.249	0.341	U	0.341
1,2-Dichloroethene(Total)	VOA	0.249	U	0.249	0.341	U	0.341
1,2-Dichloropropane	VOA	0.249	U	0.249	0.341	U	0.341
2-Butanone	VOA	2.49	U	2.49	3.41	U	3.41
2-Hexanone	VOA	2.49	U	2.49	3.41	U	3.41
4-Methyl-2-Pentanone	VOA	2.49	U	2.49	3.41	U	3.41
Acetone	VOA	2.49	U	2.49	3.41	U	3.41
Benzene	VOA	0.249	U	0.249	0.341	U	0.341
Bromodichloromethane	VOA	0.249	U	0.249	0.341	U	0.341
Bromoform	VOA	0.249	U	0.249	0.341	U	0.341
Bromomethane	VOA	0.249	U	0.249	0.341	U	0.341
Carbon disulfide	VOA	1.33	U	1.33	1.82	U	1.82
Carbon tetrachloride	VOA	0.249	U	0.249	0.341	U	0.341
Chlorobenzene	VOA	0.249	U	0.249	0.341	U	0.341
Chloroethane	VOA	0.249	U	0.249	0.341	U	0.341
Chloroform	VOA	0.249	U	0.249	0.341	U	0.341
Chloromethane	VOA	0.249	U	0.249	0.341	U	0.341
cis-1,2-Dichloroethylene	VOA	0.249	U	0.249	0.341	U	0.341
cis-1,3-Dichloropropene	VOA	0.249	U	0.249	0.341	U	0.341
Dibromochloromethane	VOA	0.249	U	0.249	0.341	U	0.341
Ethylbenzene	VOA	0.249	U	0.249	0.341	U	0.341
Methylenechloride	VOA	1.33	U	1.33	1.82	U	1.82
Styrene	VOA	0.249	U	0.249	0.341	U	0.341
Tetrachloroethene	VOA	0.249	U	0.249	0.341	U	0.341
Toluene	VOA	0.249	U	0.249	0.341	U	0.341
trans-1,2-Dichloroethylene	VOA	0.249	U	0.249	0.341	U	0.341
trans-1,3-Dichloropropene	VOA	0.249	U	0.249	0.341	U	0.341
Trichloroethene	VOA	0.249	U	0.249	0.341	U	0.341
Vinyl chloride	VOA	0.249	U	0.249	0.341	U	0.341
Xylenes (total)	VOA	0.249	U	0.249	0.341	U	0.341

Figure 2. 300-11 Waste Site Post-Excavation Civil Survey Map.